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EXAMINER

FERGUSON, KEITH

ART UNIT PAPER NUMBER

2683

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,249

Applicant(s)

FUJII ET AL.

Examiner

Keith T. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 and 8-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedeman et al. in view of Buskens et al., newly recited reference.

Regarding claim 11, Wiedeman et al. discloses a gateway (10) (base station) for performing wireless communication with a wireless communication apparatus (user terminal) (7) (col. 16 line 50 though col. 17 line 4), comprising: holding means for holding an incoming call in case where the wireless communication with the wireless communication apparatus is out of order (col. 16 line 50 though col. 17 line 4); and informing means for informing the wireless communication apparatus of the incoming call at a timing according to when the wireless communication with the wireless communication is in order (col. 16 line 50 though col. 17 line 4). Wiedeman et al. differs from claim 11 of the present invention in that it does not explicit disclose holding means for temporary holding for a pre-selected holding time. Buskens et al. teaches calls are held for a predetermined

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time when a base station and mobile terminal is loss of synchronization (abstract and col. 2 lines 14-56) and calls are reconnected to the mobile terminal when the base station and mobile terminal are in sync (abstract and col. 2 lines 14-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wiedeman et al. holding means with holding means for temporary holding for a pre-selected holding time in order for the gateway to allow the user terminal (UT) enough time to synchronize with the gateway so that calls that are held at the gateway could be forwarded to the user terminal (UT), as taught by Buskens et al..

4. Claims 1,2,5,8-10,13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. in view of Bilgic, newly recited reference.

Regarding claim 1, Takeda et al. discloses a wireless communication system (fig. 11) comprising a public base station (fig. 11 number 902) and a wireless communication apparatus (mobile station) (fig. 11 number 901), and the public base station controls transmission timing (synchronization timing) for transmitting a control signal (synchronization) from the wireless public base station to the wireless communication apparatus (col. 1 lines 35-67, col. 3 lines 20-40 and col. 7 lines 25-45). Takeda et al. differs from claim 1 of the present invention in that it does not explicit disclose wherein the communication system controls transmission timing of a control signal transmitted from the base station and addressed to the wireless communication apparatus in case where wireless communication between the base station and the addressed wireless communication apparatus is out of order. Bilgic teaches a wireless communication system (fig. 1B) comprising a base station and a mobile station (fig. 1B numbers 102 and 104), wherein the base station (i.e. a mobile component of the communication system, taught in fig. 1B) transmits a specific poll message for the mobile station in each time frame of a channel, to provide a message to the mobile station to resynchronize (resync) when the base station and mobile station is out of sync (paragraph 0122 through paragraph 0123). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takeda

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et al. wireless communication system with wherein the communication system controls transmission timing of a control signal transmitted from the base station and addressed to the wireless communication apparatus in case where the wireless communication between the base station and the addressed wireless communication apparatus is out of order in order for the wireless communication system to control the mobile station so that the mobile station knows when to power up, and power down which conserves power within the mobile station when communicating with the public base station, as taught by Bilgic.

Regarding claim 2, Takeda et al. discloses the base station controls the transmission timing in a case where informing the wireless communication apparatus of an incoming call (reception failures) is failed (col. 7 lines 25-45 and col. 10 lines 20-55).

Regarding claim 5, Takeda et al. discloses the base station controls the transmission timing in a case where an apparatus to be checked is designated by an incoming call (col. 10 lines 20-64) and the wireless communication between the wireless communication control apparatus and the addressed wireless communication apparatus related to the apparatus to be checked is out of order (synchronization lost)(col. 10 lines 20-64).

Regarding claims 8 and 16-19, Takeda et al. discloses a public base station (fig. 11 number 902) for controlling wireless communication with a wireless communication apparatus (mobile station) (fig. 11 number 901), comprising: informing means (i.e. transmission from the base station to the mobile)(col. 3 lines 20-43); and control means for controlling transmission timing for transmitting a control signal to the wireless communication apparatus when the communication apparatus is out of order (synchronization failure)(col. 3 lines 20-43 and col. 10 lines 20-64). Takeda et al. differs from claim 8 of the present invention in that it does not explicit disclose transmitting means for transmitting a control signal address to the wireless communication apparatus and control means for controlling transmission timing for transmitting of the control signal addressed to the wireless communication apparatus that is out of order. Bilgic teaches a base station and a mobile station (fig. 1B numbers 102 and 104), wherein the base station transmits a specific poll message for the mobile station in each time frame

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of a channel, to provide a message to the mobile station to resynchronize (resync) when the base station and mobile station is out of sync (paragraph 0122 through paragraph 0124). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takeda et al. with transmitting means for transmitting a control signal address to the wireless communication apparatus and control means for controlling transmission timing for transmitting of the control signal addressed to the wireless communication apparatus that is out of order in order for the public base station to control the mobile station so that the mobile station knows when to power up, and power down which conserves power within the mobile station, as taught by Bilgic.

Regarding claims 9,13-15,20-23, Takeda et al. discloses a wireless communication apparatus (mobile station) (fig. 11 number 901)/system with a base station (fig. 11) comprising: judging means (i.e. the mobile station know it is out of sync with the base station) (col. 1 lines 35-67, col. 3 lines 20-40 and col. 7 lines 25-45) for judging whether the wireless communication with the public base station is out of order or not (synchronization failure) (col. 1 lines 35-67, col. 3 lines 20-40 and col. 7 lines 25-45). Takeda et al. differs from claim 9 of the present invention in that it does not disclose request means for requesting the base station to control the transmission timing in a case where said judging means judges that the wireless communication with the base station is out of order. Bilgic teaches a mobile station in a registration request is out of sync with a base station (paragraph 0128), based upon the registration request, the base station controls a specific poll message in each time frame of a channel to provide a message resynchronize with the base station (paragraph 0016 through paragraph 0123). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made To modify Takeda et al. with request means for requesting the base station to control the transmission timing in a case where said judging means judges that the wireless communication with the base station is out of order in order for the mobile station to know the synchronization of the public base station so that it would know when to power down and power up to receive a message, as taught by Bilgic.

Regarding claim 10, Takeda et al. discloses a computer program for a public base station (fig. 11 number 902) comprising program steps of informing the wireless communication apparatus

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an incoming call in a case where the incoming call is received (col. 3 lines 20-43 and col. 10 lines 20-64); and controlling transmission timing for transmitting a control signal to the wireless communication apparatus when the wireless communication apparatus is out of order (synchronization failure) (col. 3 lines 20-43 and col. 10 lines 20-64). Takeda et al. differs from claim 8 of the present invention in that it does not explicitly disclose transmitting means for transmitting a control signal address to the wireless communication apparatus and control means for controlling transmission timing for transmitting of the control signal addressed to the wireless communication apparatus that is out of order. Bilgic teaches a base station and a mobile station (fig. 1B numbers 102 and 104), wherein the base station transmits a specific poll message for the mobile station in each time frame of a channel, to provide a message to the mobile station to resynchronize (resync) when the base station and mobile station is out of sync (paragraph 0122 through paragraph 0123). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takeda et al. with transmitting means for transmitting a control signal address to the wireless communication apparatus and control means for controlling transmission timing for transmitting of the control signal addressed to the wireless communication apparatus that is out of order in order for the computer program of the public base station to control the mobile station so that the mobile station knows when to power up, and power down which conserves power within the mobile station, as taught by Bilgic.

5. Claims 3,4 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. in view of Bilgic, newly recited reference As applied to claim to claim 1 above and in further view of Yamamoto.

Regarding claim 3, the combination of Takeda et al. and Bilgic differs from claim 3 of the present invention in that they do not disclose the wireless communication control apparatus resets the transmission timing. Yamamoto teaches a base station which resets a transmission timing (i.e. puts back a certain time or put forward a certain time) (col. 4 lines 51-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takeda et al. and Bilgic with the wireless communication control apparatus resets the transmission timing in

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order to synchronize the base station when the mobile unit roams between multiple base stations which would shorten the reception time when receiving an incoming call, as taught by Yamamoto.

Regarding claims 4 and 24, the combination of Takeda et al. and Bilgic differs from claim 4 of the present invention in that they do not disclose wherein the wireless communication control apparatus sets the transmission timing such that collision with a control signal from another wireless communication system is avoided. Yamamoto teaches a base station sets the transmission timing such that collision with a control signal from another wireless communication system (base station) is avoided (i.e. both base stations are synchronous with each other) (col. 4 lines 53-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takeda et al. and Bilgic with wherein the wireless communication control apparatus sets the transmission timing such that collision with a control signal from another wireless communication system is avoided in order to synchronize both base station in case the mobile unit is handoff when receiving an incoming call, as taught by Yamamoto.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilgic in view of Menon et al., newly recited reference.

Regarding claim 12, Bilgic discloses a base station for performing wireless communication with a wireless communication apparatus (mobile station) (paragraph 0083-paragraph 0088), comprising: first transmitting means for transmitting wireless signals to the wireless communication apparatus (paragraph 0083-paragraph 0088); receiving means for receiving a response signal from wireless communication apparatus ((paragraph 0083-paragraph 0088)). Bilgic differs from claim 12 of the present invention in that it does not disclose a second transmitting means for transmitting an alarm signal to a remote host in case the response is not received by said receiving means in response to the wireless signals transmitted regularly. Menon et al. teaches a base station receives and monitors the re-registration signals from the wireless access communication unit, and if the re-registration signals are absent for a predetermined time, issues an alarm message to the network (paragraph 0016). Therefore, it would have been obvious to one of ordinary skill

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in the art at the time the invention was made to modify Bilgic with the second transmitting means for transmitting an alarm signal to a remote host in case the response is not received by said receiving means in response to the wireless signals transmitted regularly in order to inform the network that the mobile station has not registered successfully, so that any calls that are directed to the mobile station must be held in storage or denied, as taught by Menon et al..

Response to Arguments

7. Applicant's arguments filed June 20, 2005 have been fully considered but they are not deemed to be persuasive. The following are explanations to the applicant arguments:

1. Argument: Regarding claims 1 and 8-10, applicant alleges that Bilgic do not disclose controlling transmission timing of a control signal transmitted from the base station and addressed to the wireless communication apparatus in case where wireless communication between the base station and the addressed wireless communication apparatus is out of order.

Explanation: Examiner respectfully disagrees because Bilgic teaches a Specific poll message (i.e. a control signal used as a timing message between base station and mobile station) that is sent to the mobile station for the mobile station to resync to (paragraph 0123).

2. Argument: Regarding claim 12, applicant alleges that Menon's system it is not the absence of a signal that triggers the alarm.

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Explanation: Examiner respectfully disagrees because Menon's system teaches in paragraph 0016, the base station receives and monitors the re-registration signals from the wireless access communication unit and, if the re-registration signals are absent for a predetermined of time, issues an alarm message to the network.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (571) 272-7865. The examiner can normally be reached on 6:30am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson
Art Unit 2683
August 31, 2005

KEITH FERGUSON
PRIMARY EXAMINER
